

5. Reports on the Collections of Birds made during the Voyage of H.M.S. 'Challenger.'—No. XI. On the Steganopodes and Impennes. By P. L. SCLATER, M.A., Ph.D., F.R.S., and OSBERT SALVIN, M.A., F.R.S.

[Received May 24, 1878.]

a. STEGANOPODES.

Of this order the collection contains 33 specimens belonging to 9 species, as follows:—

1. FREGATIDÆ.

1. FREGATA AQUILA (Linn.).

a, adult, }
b, young, } Ascension Island (March 1876).
c, young, }

2. FREGATA MINOR (Gm.).

Attagen ariel, Gould, B. Austr. vii. pl. 72.

133, male, Raine Island.

"Legs and feet black; bill grey; skin of throat red; eyes red. The skin of the throat is of a lighter red in the male than in the female. The stomach contained remains of cuttlefish, *Spirula*, and a fish."—*J. M.*

134, female, }
135, young, female, } Raine Island.
136, nestling, female, }

"Feet red; eyes red. The bill and feet of the young birds are of a white colour with a shade of blue; eyes black.

"In the adult birds the male has the eyelids, feet, and eyes black. The female has these parts red. This holds good in all our specimens."—*J. M.*

144, female, Raine Island.

482, male, Admiralty Island.

"Eyes black; flesh of throat red. Stomach contained fish. I shot this bird from the pinnacle while with several others. It was hovering over a shoal of fish. A Noddy and Black-headed Terns, and a Puffin or Petrel, larger than a Cape-Pigeon, were also fishing."—*J. M.*

The series before us, so far as it goes, tends to show that this smaller Frigate-bird may remain distinct from its larger brother, although we are not aware of any other obvious point of difference than that of size.

The specimens measure as follows:—

	Wing.	Bill from gape.
<i>Fregata aquila</i> , a	23·5	5·0
" " jr., b.	23·0	4·5
" " jr., c.	22·0	4·4

		Wing.	Bill from gape.
<i>Fregata minor</i>	♂, 133	20·5	3·9
"	" ♀, 134.	20·5	4·0
"	" ♀, 144.	20·5	4·0
"	" ♂, 482.	20·5	4·0

The bill of *F. minor* is also narrower at the base, and more feeble.

2. PHAËTHONIDÆ.

3. PHAËTHON ÆTHEREUS, Linn.

a, Ascension Island (1876, March).

143, female (young), Raine Island.

"Eyes black, legs white, claws black, bill dark brown colour. The only one seen on the island."—*J. M.*

4. PHAËTHON FLAVIROSTRIS, Brandt.

a, } Fernando Noronha (Sept. 1873).
b, }

c, male, } Ascension (March 1876).
d, male, }

e, female, Tongatabou.

507, female, at sea, 19th March, 1875.

"Eyes black, legs lake-white. The claws and membrane between the toes quite black. Bill pale yellow. Came on board the ship on the morning of the 19th March, 1875, before daylight. The bill of a cuttlefish was in the stomach."—*J. M.*

3. PELECANIDÆ.

5. SULA LEUCOGASTRA (Bodd.).

Pelecanus sula, Linn. S. N. i. p. 218.

Le Fou de Cayenne, Buff. Pl. Enl. 973, undè

Pelecanus leucogaster, Bodd. Tabl. de Pl. Enl. p. 57.

Sula leucogastra, Salvin, Trans. Zool. Soc. ix. p. 496.

141, male, Raine Island.

"Eyes grey; feet light green; bill bluish towards the base, white at the tip."—*J. M.*

510, female, at sea.

"Eyes white or light grey. Stomach had cuttlefish; feet yellow with green tinge; bill flesh-colour, cere greenish. Came on board the ship on the evening of the 6th April, 1875."—*J. M.*

a, female. Ascension (March 1876).

b, } St. Paul's rocks, Atlantic (August 1873).
c, }

6. SULA PISCATOR (Linn.).

Pelecanus piscator, Linn. S. N. i. p. 217.

Dysporus piscator, Finsch et Hartl. Orn. Centr.-Polyn. p. 255.

123, female, off Cape York, at sea.

"Eyes brown; bill and throat light blue-reddish towards the base,

and the tips of both mandibles brown; feet coral-red. The stomach contained cuttlefish about $3\frac{1}{2}$ and 4 inches long, allied to *Gonatus amœnus*, and the caudal portion of a fish. There were a great many lice on this bird (preserved in a tube).”—*J. M.*

139, female, Raine Island.

“Eyes hazel; feet red; bill light blue, red towards the base. Stomach contained fish and cuttlefish.”—*J. M.*

7. *SULA CYANOPS*, Sund.

Sula cyanops, Sund. Phys. Sällsk. Tidsekr. 1837, p. 218.

Dysporus cyanops, Finsch et Hartl. Orn. Centr.-Pol. p. 252.

137 and 138, females, Raine Island.

“Eyes yellow, skin of the throat black, legs and feet slate-colour. Stomach contained fish and cuttlefish.”—*J. M.*

8. *PHALACROCORAX IMPERIALIS*.

Phalacrocorax imperialis, King, P. Z. S. 1831, p. 20.

Phalacrocorax carunculatus, Scl. et Salv. Ibis, 1870, p. 500.

637, male, Core Harbour, Messier Channel.

“Eyes brown. Stomach had shells.”—*J. M.*

This Cormorant appears to be different from the *P. carunculatus* of New Zealand, with which we have hitherto united it, having a broad white patch on the middle of the back in the adult plumage, no crest, and the white extending further over the cheeks. Both species have the white bar on the upper wing-coverts.

The species of the Falkland Islands which has hitherto been called *Ph. carunculatus* (Scl. P. Z. S. 1860, p. 391; Abbott, ‘Ibis,’ 1861, p. 166) is again different, having a recurved crest and the caruncles on the front largely developed. It should probably stand as *P. albiventris*, Lesson’s *Carbo albiventer* (Trait. d’Orn. p. 604) being apparently based upon the young of this species.

9. *PHALACROCORAX VERRUCOSUS*.

Halieus (Hypoleucus) verrucosus, Cab. Journ. f. O. 1875, p. 450.

Halieus verrucosus, Cab. et Reich. Journ. f. O. 1876, p. 359, tab. 1.

Phalacrocorax verrucosus, Sharpe, Zool. of Kerguelen, p. 49.

a, male,

b, male,

c, male (young),

d, female,

e, female,

f, sex ind.,

} Betsy Cove, Kerguelen Land, January 1874.

The series of this Shag is quite sufficient to warrant us in adhering to the species as distinct. The principal characters are clearly pointed out by Dr. Cabanis in his original description; and a good figure is given of the adult male under the second reference given above. Not one of the six specimens, of which *a*, *b*, and, apparently, *f* are adult, shows any traces of the white line along the upper wing-coverts

or of the white spot in the middle of the back which distinguish *P. imperialis*. The female, *d*, is in young plumage.

b. IMPENNES.

Of Penguins the collection contains 37 specimens, belonging to 6 species.

1. APTENODYTES LONGIROSTRIS.

Aptenodyta longirostris, Scop. Del. Faun. et Flor. Ins. ii. p. 91.

Aptenodytes longirostris, Coues, Pr. Ac. Phil. 1872, p. 193 ; Sharpe, Zool. Kerg. p. 52.

a, Kerguelen Land.

b, Christmas Harbour, Kerguelen.

c, Marion Island.

734, female, } Falklands.
735, male, }

"Eyes brown; the stomach of the female had the remains of cuttlefish, there being many beaks of these and also a weed-like substance. Female weighed 20 lb. ; skin of male weighed 10 lb."—*J. M.*

2. PYGOSCELES TÆNIATUS.

Aptenodytes papua, Forst. Nov. Comm. Gott. iii. p. 140, tab. iii.

Aptenodytes tæniata, Peale, U.S. Expl. Exp. p. 264 (1848).

Pygosceles wagleri, Scl. P. Z. S. 1860, p. 390.

Pygosceles tæniata, Coues, Pr. Ac. Phil. 1872, p. 195 ; Sharpe, Zool. Kerg. p. 54.

a,
b,
c,
d,
e,
f, } Kerguelen Land.

3. SPHENISCUS DEMERSUS.

Diomedea demersa, Linn. S. N. i. p. 214.

Spheniscus demersus, Temm. Tabl. Méth. p. 107 (1836).

a,
b,
c,
d, } Cape of Good Hope.

4. SPHENISCUS MAGELLANICUS.

Aptenodytes magellanicus, Forst. Nov. Comm. Gott. iii. p. 143, tab. v.

Spheniscus magellanicus, Scl. P. Z. S. 1860, p. 382.

Spheniscus demersus, var. *magellanicus*, Coues, Pr. Ac. Phil. 1872, p. 209.

689, male, Port Churrucha.

"The only one seen. Eyes hazel; the stomach had many portions of fish, some of considerable size; upper part of the feet white, bill black or slate-coloured."—*J. M.*

741, female, Falklands.

"Eyes brown; stomach had fish."—*J. M.*

In our opinion this species is quite distinct from *S. demersus* of the Cape, having a double band on the chest, as is well represented in Forster's figure.

5. EUDYPTES CHRYSOLOPHUS.

Aptenodytes chrysocome, Forst. N. Comm. Gott. iii. p. 135.

Catarractes chrysolophus, Brandt, Bull. Ac. Pét. ii. p. 315.

Eudyptes chrysolophus, Sel. Ibis, 1860, pp. 338, 432, et P. Z. S. 1860, p. 390; Abbott, Ibis, 1861, p. 163; Sharpe, Zool. Kerg. p. 57.

Eudyptes diadematus, Gould, P. Z. S. 1860, p. 419.

a-c, males, }
d, female, } Christmas Harbour, Kerguelen.
e, pale var., }

On comparison of the Kerguelen specimen with others from the Falklands we find no reason for considering them otherwise than of the same species. There is, however, less appearance of the white upper tail-coverts in the Falklands specimens. Why Mr. Sharpe should have supposed that *E. chrysolophus* (Selater et Abbott) of the Falklands was his *E. saltator* we cannot understand.

Forster evidently had both the "Rock-hopper" and "Macaroni" Penguins under his eyes when he described his *Apt. chrysocome*¹. Brandt first clearly separated the two species, which are quite distinct and easily recognized by the character which Brandt gives.

The type specimen of *E. diadematus*, Gould, for which we have made every inquiry, is unfortunately no longer to be found. Mr. Gould has parted with it, he knows not whither. It was *probably* only an individual variety of this species.

6. EUDYPTES CHRYSOCOME.

Aptenodytes chrysocome, Forst. N. Comm. Gott. iii. p. 135 (partim).

Catarractes chrysocome, Brandt, Bull. Ac. Pét. ii. p. 314.

Eudyptes chrysocome, Sel. P. Z. S. 1860, p. 390.

Eudyptes nigrivestris, Gould, P. Z. S. 1860, p. 418.

Eudyptes saltator, Sharpe, Zool. Kerg. p. 60.

a-e, Inaccessible Island.

f, male, }
g-k, } Kerguelen.

l, m, males, }
n, young, } Falklands.

On comparison of the series from these three localities we cannot satisfactorily recognize more than one species of "Rock-hopper." The bird from Inaccessible Island has the elongated superciliary

¹ He describes the crest "in aliis individuis in fronte unita, in aliis divisa" (*l. s. c.* p. 137).

plumes more produced; those of the Falklands and Kerguelen have them rather shorter.

As regards the Australian and New-Zealand bird (*E. pachyrhynchus* of Gray), to which Mr. Sharpe proposes to restrict the name *chrysocome* of Forster, we likewise doubt its distinctness. The only differential characters given by Mr. Sharpe consist in the relative lengths of the black and yellow feathers of the superciliary tufts. At the same time we should like to examine a series of this form before pronouncing a decided opinion on the point.

June 18th, 1878.

Arthur Grote, Esq., F.Z.S., V.P., in the Chair.

Extracts were read from a letter addressed to the Secretary by Mr. E. L. Layard, F.Z.S., dated British Consulate, Noumea, March 30th, 1878.

Mr. Layard pointed out that Mr. Gould's *Glycyphila fasciata* (Handb. B. Austr. i. p. 499; B. Austr. iv. tab. 30) was quite a different bird from *G. fasciata* (Forster) of New Caledonia, the latter being nearly half as large again. Mr. Layard proposed to change the name of the Australian species to *G. gouldi*.

Mr. Layard also sent the subjoined note on *Petroica kleinschmidti* of Finsch:—

“Dr. Finsch has described as new, under the name of *Petroica kleinschmidti*, the little *Petroica* of Fiji (P. Z. S. 1875, p. 643). I wish to point out that this species will not stand, and that the Fijian species is not separable from the Samoan *P. pusilla*, Peale. Dr. Finsch says, ‘it differs from *P. pusilla*, Peale, from the Navigators, in lacking the white front and the large white mark on the wing-coverts.’ Dr. Finsch’s description is evidently taken from a female; and she lacks the white marks, which, however, are very visible in the male.

“I have before me two pairs of Fijian birds (♂ and ♀), and three males from Samoa. Unfortunately one of these, from Mr. Whitmee, is unsexed; the other two are of my own killing: one is a young male, and I have no doubt Mr. Whitmee’s bird is also a male; none are in very good plumage, whereas my Fijian birds are in splendid order.

“Now, I can affirm that the males are not to be distinguished one from the other, except that the Fijians are in brighter plumage; so that *P. kleinschmidti* must sink into a synonym of *P. pusilla*, with Peale’s description of which (U.S. Expl. Exped. p. 165) it entirely agrees.”

Mr. Sclater called the attention of the members present to the unique specimen of his *Felis lanea* (P. Z. S. 1877, p. 532), still living in the Society’s menagerie, and read the subjoined extract from a letter of Mr. E. L. Layard, F.Z.S., relating to this animal:—

“It will interest you to know that there is a second specimen of

your *Felis lanea* in the South-African museum, sent from the same place (the Beaufort-West Karras) by the late Arthur V. Jackson, who killed it himself. Unfortunately I received the skin in very bad condition. The ground-colour is much paler than in your plate, almost white.

“Jackson and I thought it an albinism (or rather erythrism) of *F. jubata* (see Catalogue of S. A. Museum, p. 38, No. 82, *Gueparda jubata*, specimen *b*). At p. 39 of the same Catalogue, I remark that we have had notices of a second species of Maned Leopard, with solid spots and with retractile claws, from Natal. The claws of your animal are not shown in Smit’s plate. What is their structure?”

On this last point Mr. Selater stated that, so far as could be told from examination of the living animals, the claws of *Felis lanea* resembled those of *Felis jubata*, being observable when the feet were at rest, and being but slightly extensile.

The existence of a second specimen of the animal in the South-African Museum (of which Mr. R. Trimen had also informed Mr. Selater) was a fact of great interest.

Mr. Selater read some Supplementary Notes on the Curassows (Cracidæ), mainly based on specimens which had been received by the Society alive since Mr. Selater’s previous memoir on this subject had been read five years ago.

This paper will be published in the Society’s ‘Transactions.’

The following papers were read:—

1. On the Squirrels of the Neotropical Region.

By EDWARD R. ALSTON, F.L.S., F.Z.S., &c.

[Received June 3, 1878.]

(Plate XLI.)

No better example of a polymorphic genus can be found than the almost cosmopolitan *Sciurus*. Even our common European Squirrel assumes such phases of coloration in the north, in the east, and among the Alps that the extremes would undoubtedly be considered perfectly distinct species if the intermediate links were not known. The same variability is found to a still greater extent in many of the Oriental species; while the polymorphism of some of the North-American forms was pointed out by Professor Baird more than twenty years ago.¹

It is only lately that similar critical attention has been given to the Squirrels of the Neotropical Region. Of these no fewer than *fifty-nine* nominal species have been described by various writers. The late Dr. Gray, in 1867, published a “Synopsis of the Species

¹ Mamm. North Amer. pp. 244, 245.